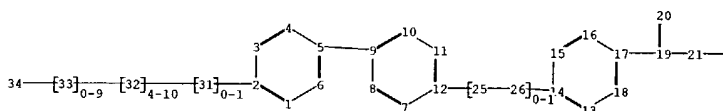
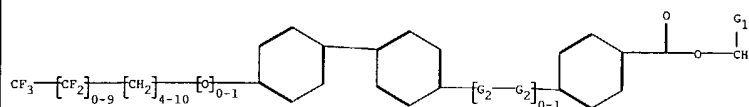


## WEST Search History

DATE: Monday, August 02, 2004

Hide?	Set Name	Query	Hit Count
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<input type="checkbox"/>	L4	V-shaped with analog	20
<input type="checkbox"/>	L3	V-shaped with bistable	10
<input type="checkbox"/>	L2	V-shaped with analog with bistable	0
<input type="checkbox"/>	L1	V-shaped with smectic A	1

END OF SEARCH HISTORY



chain nodes :

19 20 21 22 24 25 26 31 32 33 34

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

2-31 5-9 12-25 14-26 17-19 19-20 19-21 21-22 22-24 25-26 31-32 32-33 33-34

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15  
15-16 16-17 17-18

exact/norm bonds :

2-31 12-25 14-26 19-20 19-21 21-22 22-24 25-26

exact bonds :

5-9 17-19 31-32 32-33 33-34

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15  
15-16 16-17 17-18

G1:CH3,CF3

G2:C,O

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom  
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:CLASS  
21:CLASS 22:CLASS 24:CLASS 25:CLASS 26:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS

=> dis 1-5 all hitstr

L7 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:43947 CAPLUS  
DN 138:213125  
ED Entered STN: 19 Jan 2003  
TI Novel thickness-dependent thermal behavior and anticlinic coupling in  
chiral smectic free-standing liquid-crystal films  
AU Wu, Pin-Jiun; Chao, Chih-Yu; Lo, Chien-Rong; Veum, Michael; Link, Darren  
R.; MacLennan, Joseph E.; Clark, Noel A.  
CS Department of Physics and Astronomy, National Central University,  
Chung-Li, 32054, Taiwan  
SO Ferroelectrics (2002), 277, 197-206  
CODEN: FEROA8; ISSN: 0015-0193  
PB Taylor & Francis Ltd.  
DT Journal  
LA English  
CC 75-11 (Crystallography and Liquid Crystals)  
AB In free-standing films of a chiral smectic liquid crystal, discrete  
transitions in the relative orientation of the tilt of the interior and  
surface layers were observed. These transitions include a remarkable  
reentrant synclinic-anticlinic-synclinic ordering sequence of the film  
surfaces in the presence of an elec. field upon cooling. The profiles of  
the associated heat-capacity anomalies are strongly thickness-dependent and  
exhibit a novel crossover behavior in reduced dimensions.  
ST chiral smectic liq crystal film transition thickness  
IT Liquid crystals  
(chiral smectic; novel thickness-dependent thermal behavior and  
anticlinic coupling in chiral smectic free-standing liquid-crystal films)  
IT Liquid crystals  
(films; novel thickness-dependent thermal behavior and anticlinic  
coupling in chiral smectic free-standing liquid-crystal films)  
IT Films  
(liquid-crystal; novel thickness-dependent thermal behavior and  
anticlinic coupling in chiral smectic free-standing liquid-crystal films)  
IT Surface phase transition  
(novel thickness-dependent thermal behavior and anticlinic coupling in  
chiral smectic free-standing liquid-crystal films)  
IT Electric field  
(novel thickness-dependent thermal behavior and anticlinic coupling in  
chiral smectic free-standing liquid-crystal films in)  
IT Heat capacity  
(of chiral smectic free-standing liquid-crystal films near transition as  
function of thickness)  
IT Liquid crystals  
(transitions; novel thickness-dependent thermal behavior and anticlinic  
coupling in chiral smectic free-standing liquid-crystal films)  
IT 402860-25-7  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP  
(Physical process); PROC (Process)  
(novel thickness-dependent thermal behavior and anticlinic coupling in  
chiral smectic free-standing liquid-crystal films of)  
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE  
(1) Akizuki, T; Jpn J Appl Phys 1999, V38, P4832 CAPLUS  
(2) Bahr, C; Phys Rev A 1990, V41, P4335 CAPLUS  
(3) Bahr, C; Phys Rev A 1992, V46, P7657 CAPLUS  
(4) Bahr, C; Phys Rev Lett 1993, V70, P1842 CAPLUS  
(5) Cepic, M; Mol Cryst Liq Cryst 1995, V263, P61  
(6) Chandani, A; Jpn J Appl Phys 1989, V28, PL1265 CAPLUS  
(7) Dumrongrattana, S; Phys Rev A 1986, V33, PR2182  
(8) Fukui, M; Jpn J Appl Phys 1989, V28, PL849 CAPLUS  
(9) Geer, R; Rev Sci Instrum 1991, V62, P415 CAPLUS  
(10) Johnson, P; Phys Rev E 2000, V62, P8106 CAPLUS

- (11) Levelut, A; Phys Rev E 1999, V60, P6803 CAPLUS
- (12) Link, D; Phys Rev Lett 1996, V77, P2237 CAPLUS
- (13) Link, D; Phys Rev Lett 1999, V82, P2508 CAPLUS
- (14) Liu, H; Phys Rev A 1989, V40, P6759
- (15) Lorman, V; Mol Cryst Liq Cryst 1995, V262, P437
- (16) Mach, P; Phys Rev Lett 1998, V81, P1015 CAPLUS
- (17) Meyer, R; J Phys (Paris) Lett 1975, V36, P69
- (18) Pikin, S; Mol Cryst Liq Cryst 1995, V262, P425
- (19) Roy, A; Europhys Lett 1996, V36, P221 CAPLUS
- (20) Shashidhar, R; Phys Rev Lett 1988, V61, P547 CAPLUS
- (21) Stoebe, T; Phys Rev E 1996, V54, P1584 CAPLUS
- (22) Wand, M; private communication
- (23) Young, C; Phys Rev Lett 1978, V40, P773 CAPLUS

IT 402860-25-7

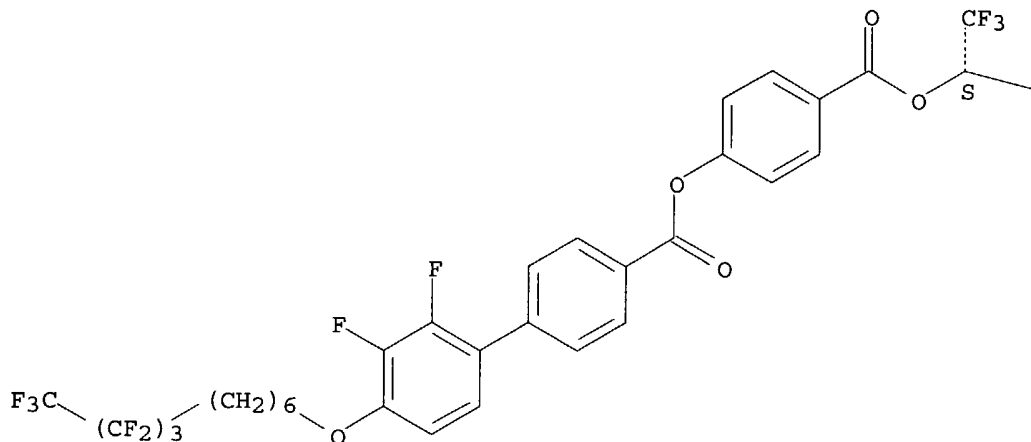
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)  
(novel thickness-dependent thermal behavior and anticlinic coupling in chiral smectic free-standing liquid-crystal films of)

RN 402860-25-7 CAPLUS

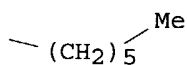
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
[(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1S)-1-(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L7 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:883500 CAPLUS  
 DN 138:210708  
 ED Entered STN: 21 Nov 2002  
 TI Nonplanar structure of molecular tilt planes in the surface layers of  
 smectic-A free-standing liquid crystal films  
 AU Han, X. F.; Olson, D. A.; Cady, A.; Link, D. R.; Clark, N. A.; Huang, C.  
 C.  
 CS School of Physics and Astronomy, University of Minnesota, Minneapolis, MN,

55455, USA

SO Physical Review E: Statistical, Nonlinear, and Soft Matter Physics (2002),  
66(4-1), 040701/1-040701/4  
CODEN: PRESCM

PB American Physical Society

DT Journal

LA English

CC 66-3 (Surface Chemistry and Colloids)  
Section cross-reference(s): 75

AB Ellipsometric results from thin free-standing films of one chiral liquid  
crystal compound are presented. In the bulk SmA range with surface-induced  
mol. tilt, a nonplanar arrangement of the mol. orientations of the tilted  
surface layers is found under a small applied elec. field.

ST smectic A film surface nonplanar structure mol tilt

IT Liquid crystals  
(films; nonplanar structure of mol. tilt planes in surface layers of  
smectic-A free-standing liquid crystal films)

IT Films  
(liquid-crystal; nonplanar structure of mol. tilt planes in surface  
layers of smectic-A free-standing liquid crystal films)

IT Electric field  
Molecular orientation  
(nonplanar arrangement of mol. orientations of tilted surface layers of  
smectic-A free-standing liquid crystal films under small applied elec.  
field)

IT Surface structure  
(nonplanar structure of mol. tilt planes in surface layers of smectic-A  
free-standing liquid crystal films)

IT Liquid crystals  
(smectic A; nonplanar structure of mol. tilt planes in surface layers  
of smectic-A free-standing liquid crystal films)

IT 402860-25-7  
RL: PRP (Properties)  
(nonplanar structure of mol. tilt planes in surface layers of smectic-A  
free-standing liquid crystal films)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Andreeva, P; Phys Rev E 1999, V59, P4143 CAPLUS

(2) Bahr, C; Phys Rev A 1992, V46, P7657 CAPLUS

(3) Berreman, D; J Opt Soc Am 1972, V62, P502 CAPLUS

(4) Binder, K; Phase Transitions and Critical Phenomena 1986, V8

(5) Chao, C; Phys Rev Lett 2001, V86, P4048 CAPLUS

(6) Clark, N; Appl Phys Lett 2002, V80, P4097 CAPLUS

(7) Heinekamp, S; Phys Rev Lett 1984, V52, P1017 CAPLUS

(8) Johnson, P; Phys Rev E 2000, V62, P8106 CAPLUS

(9) Johnson, P; Phys Rev Lett 1999, V83, P4073 CAPLUS

(10) Link, D; Phys Rev Lett 1999, V82, P2508 CAPLUS

(11) Olson, D; Liq Cryst to be published

(12) Pindak, R; Phys Rev Lett 1980, V45, P1193 CAPLUS

(13) Schlauf, D; Eur Phys J B 1999, V9, P461 CAPLUS

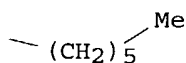
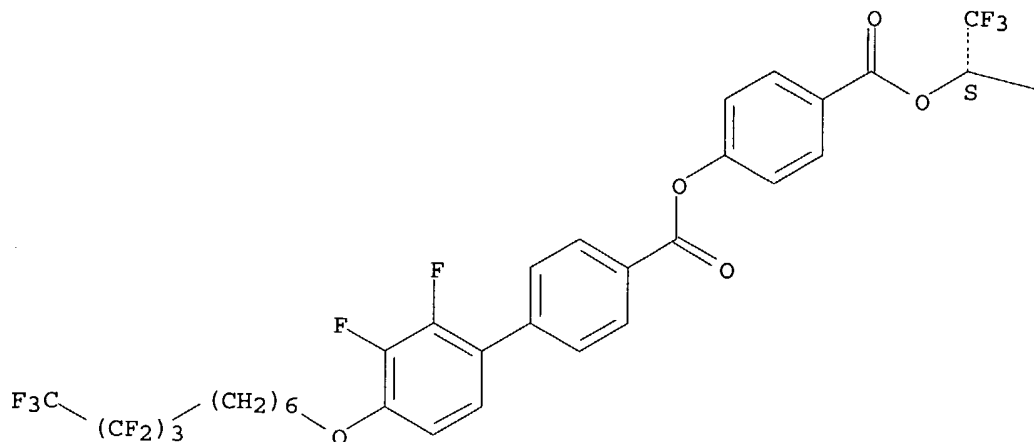
(14) Wohler, H; J Opt Soc Am A 1988, V5, P1554

IT 402860-25-7  
RL: PRP (Properties)  
(nonplanar structure of mol. tilt planes in surface layers of smectic-A  
free-standing liquid crystal films)

RN 402860-25-7 CAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
[(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1S)-1-  
(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:399159 CAPLUS  
 DN 137:177483  
 ED Entered STN: 29 May 2002  
 TI Electro-optic characteristics of de Vries tilted smectic liquid crystals:  
 Analog behavior in the smectic A\* and smectic C\* phases  
 AU Clark, N. A.; Bellini, T.; Shao, R.-F.; Coleman, D.; Bardon, S.; Link, D.  
 R.; MacLennan, J. E.; Chen, X.-H.; Wand, M. D.; Walba, D. M.; Rudquist,  
 P.; Lagerwall, S. T.  
 CS Department of Physics, and Ferroelectric Liquid Crystal Materials Research  
 Centre, University of Colorado, Boulder, CO, 80309, USA  
 SO Applied Physics Letters (2002), 80(22), 4097-4099  
 CODEN: APPLAB; ISSN: 0003-6951  
 PB American Institute of Physics  
 DT Journal  
 LA English  
 CC 75-11 (Crystallography and Liquid Crystals)  
 AB Chiral smectic A liquid crystal materials of the de Vries type (with mols.  
 tilted relative to the layer normal) exhibit analog field-induced  
 (electroclinic) optic axis rotation accompanied by an increase in  
 birefringence. The authors identify two such de Vries smectic A\*  
 materials and use them to develop and test models for these characteristic  
 electrooptic effects. These materials also exhibit colossal analog  
 field-induced optic axis rotation in the lower temperature smectic C\* phase, a  
 consequence of polarization charge stabilization, and of polarization  
 screening of the applied field in the liquid crystal.  
 ST electrooptic effect de Vries tilted smectic liq crystal  
 IT Electrooptical effect  
 (electro-optic characteristics of de Vries tilted smectic liquid  
 crystals: analog behavior in smectic A\* and smectic C\* phases)  
 IT Birefringence  
 (of MDW122C4 and MDW122C6 smectic liquid crystals accompanied by  
 field-induced optic axis rotation)  
 IT Liquid crystals

(smectic; electro-optic characteristics of de Vries tilted smectic liquid crystals: analog behavior in smectic A\* and smectic C\* phases)

IT 347192-53-4 402860-12-2

RL: PRP (Properties)

(electro-optic characteristics of de Vries tilted smectic liquid crystals: analog behavior in smectic A\* and smectic C\* phases)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bahr, C; Phys Rev A 1991, V44, P3669 CAPLUS
- (2) Bahr, C; Phys Rev A 1991, V41, P4335
- (3) Bahr, C; Physica A 1991, V174, P139 CAPLUS
- (4) Bartoli, F; Phys Rev E 1997, V55, PR1271 CAPLUS
- (5) Clark, N; Appl Phys Lett 1980, V36, P899 CAPLUS
- (6) Clark, N; J Mater Chem 1999, V9, P1257
- (7) Clark, N; Liq Cryst 2000, V27, P985 CAPLUS
- (8) de Vries, A; Mol Cryst Liq Cryst 1977, V41, P27 CAPLUS
- (9) Fukuda, A; Proceedings of the 15th International Display Research Conference of the SID 1995, P61
- (10) Garoff, S; Phys Rev A 1979, V19, P338 CAPLUS
- (11) Garoff, S; Phys Rev Lett 1977, V38, P848 CAPLUS
- (12) Inui, S; J Mater Chem 1996, V6, P671 CAPLUS
- (13) Lagerwall, S; Ferroelectric and Antiferroelectric Liquid Crystals 1999
- (14) Meyer, R; J Phys (France) 1975, V36, PL-69
- (15) Rudquist, P; Digest of Technical Papers of the SID International Symposium 1999, P409
- (16) Selinger, J; Phys Rev E 2001, V64, P061705 MEDLINE
- (17) Zhuang, Z; Proc SPIE 1989, V1080, P110 CAPLUS

IT 347192-53-4 402860-12-2

RL: PRP (Properties)

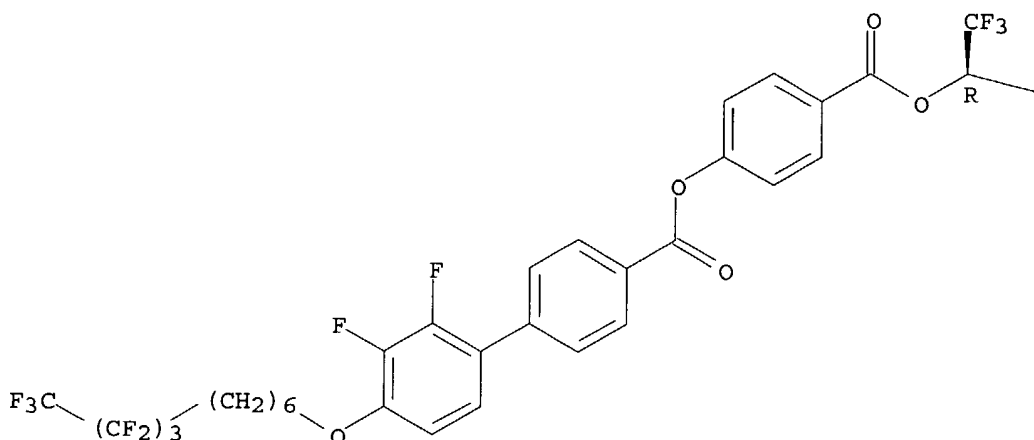
(electro-optic characteristics of de Vries tilted smectic liquid crystals: analog behavior in smectic A\* and smectic C\* phases)

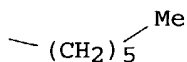
RN 347192-53-4 CAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
[(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1R)-1-  
(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



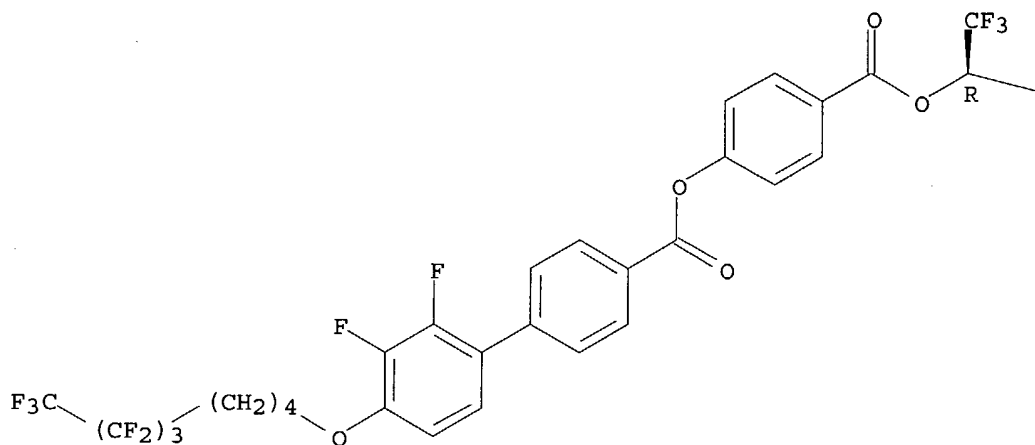


RN 402860-12-2 CAPLUS

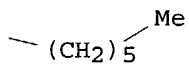
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-[(5,5,6,6,7,7,8,8,8-nonafluorooctyl)oxy]-, 4-[[[(1R)-1-(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:172022 CAPLUS  
 DN 136:224305  
 ED Entered STN: 08 Mar 2002  
 TI Partially fluorinated liquid crystal material  
 IN Wand, Michael; Gough, Neil; Chen, Xin Hua  
 PA Displaytech, Inc., USA  
 SO PCT Int. Appl., 91 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C09K019-34  
 ICS C09K019-20; C09K019-12; C07C069-76  
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 75  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2002018514 A1 20020307 WO 2001-US27182 20010831  
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,  
DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,  
JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,  
MN, MW, MX, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,  
TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,  
MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
US 2003017278 A1 20030123 US 2001-854181 20010511  
AU 2001085364 A5 20020313 AU 2001-85364 20010831  
PRAI US 2000-229892P P 20000901  
US 2001-854181 A 20010511  
WO 2001-US27182 W 20010831

# CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2002018514	ICM	C09K019-34
	ICS	C09K019-20; C09K019-12; C07C069-76

OS MARPAT 136:224305

AB The invention provides LC compns. that exhibit V-shaped switching when aligned in an analog device configuration and exhibit bistable switching when aligned in a bookshelf-type device configuration. The invention more specifically provides LC compns. of (R = fluorinated alkyl, ether; A, B, C = 5-6 aromatic rings each substituted with 1-4 fluorines and CH can be substituted with N, O, S; d = 0, 1; D = COO, OOC, CH<sub>2</sub>CH<sub>2</sub>, double bond, triple bond; Y = C1-6 alkyl, fluorinated alkyl; R1 = nonchiral tail alkyl with CH<sub>2</sub> group replaced by O, S, etc.) which exhibit bistable switching as well as V-shaped switching when aligned in appropriate device configurations. The invention also provides methods of using the compds. of the invention in making LC compns. and electrooptical devices comprising an aligned layer of the compns. of this invention.

ST fluorinated liq crystal compn display

IT Liquid crystal displays

(partially fluorinated liquid crystal material for)

IT Liquid crystals

(partially fluorinated liquid crystal material for liquid crystal display)

IT 119557-43-6 402860-24-6 402860-25-7 402860-26-8

402860-27-9 402860-28-0 402860-29-1 402860-30-4 402860-31-5

402860-32-6 402860-33-7 402860-34-8 402860-35-9 402860-36-0

402860-37-1

RL: DEV (Device component use); USES (Uses)

(partially fluorinated liquid crystal material for liquid crystal display)

IT 402860-38-2

RL: DEV (Device component use); PRP (Properties); USES (Uses)

(partially fluorinated liquid crystal material for liquid crystal display)

IT 347192-53-4P 402860-12-2P 402860-23-5P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP

(Preparation); USES (Uses)

(partially fluorinated liquid crystal material for liquid crystal display)

IT 402860-22-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(partially fluorinated liquid crystal material for liquid crystal display)

IT 402860-19-9P

RL: DEV (Device component use); SPN (Synthetic preparation); PREP

(Preparation); USES (Uses)

(preparation of partially fluorinated liquid crystal material for liquid

crystal

display)

IT 98-59-9, Tosyl chloride 100-39-0, Benzyl bromide 104-15-4, reactions

110-53-2, 1-Bromopentane 110-87-2 120-47-8, Ethyl 4-hydroxybenzoate

423-39-2 821-41-0, 5-Hexen-1-ol 1438-82-0, 1,1,1,3,3-

Pentamethyldisiloxane 5419-55-6 5798-75-4, Ethyl 4-bromobenzoate  
6418-38-8, 2,3-Difluorophenol 7103-09-5 15448-47-2, reactions  
16853-85-3 33036-62-3, 4-Bromobutan-1-ol 121170-45-4,  
[R]-1-Trifluoromethyl heptanol

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of partially fluorinated liquid crystal material for liquid  
crystal

display)

IT 1486-51-7P, 4-Benzyloxybenzoic acid 31608-22-7P 56441-55-5P, Ethyl  
4-benzyloxybenzoate 116486-78-3P 121170-46-5P 121170-47-6P  
144178-30-3P 162082-63-5P 181042-39-7P 228570-09-0P 402860-04-2P  
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation of partially fluorinated liquid crystal material for liquid  
crystal

display)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Drzewinski; CAPLUS 1198:624787
- (2) Okabe; JP 882778 1996
- (3) Suzuki; US 5110497 A 1992 CAPLUS

IT 402860-24-6 402860-25-7

RL: DEV (Device component use); USES (Uses)

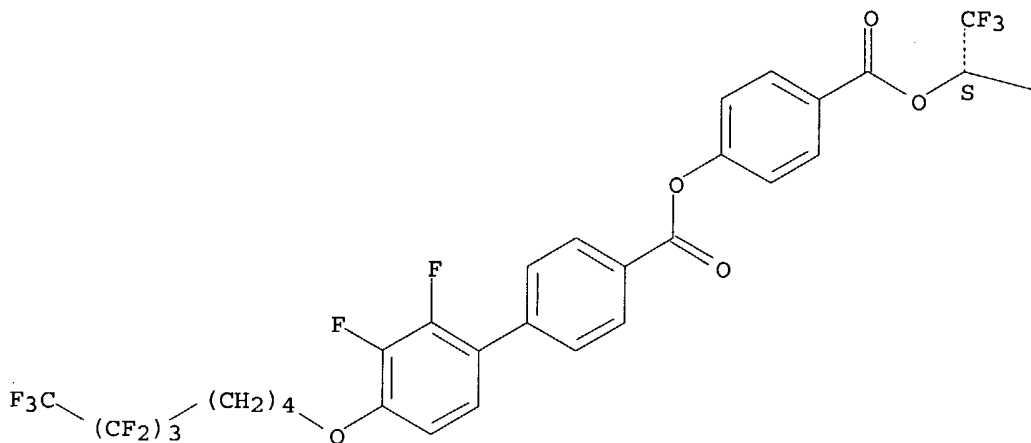
(partially fluorinated liquid crystal material for liquid crystal display)

RN 402860-24-6 CAPLUS

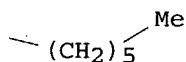
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-[(5,5,6,6,7,7,8,8,8-  
nonafluorooctyl)oxy]-, 4-[[[(1S)-1-(trifluoromethyl)heptyl]oxy]carbonyl]ph  
enyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

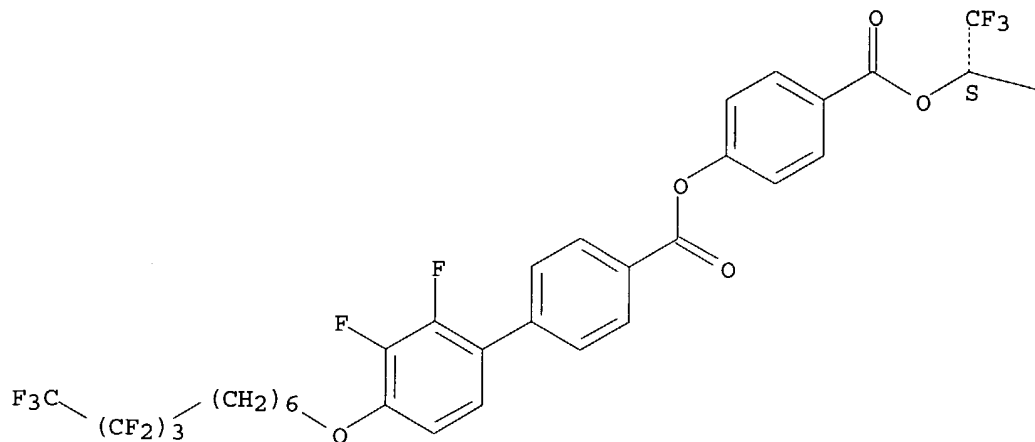


RN 402860-25-7 CAPLUS

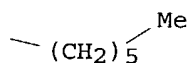
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
 [(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1S)-1-  
 (trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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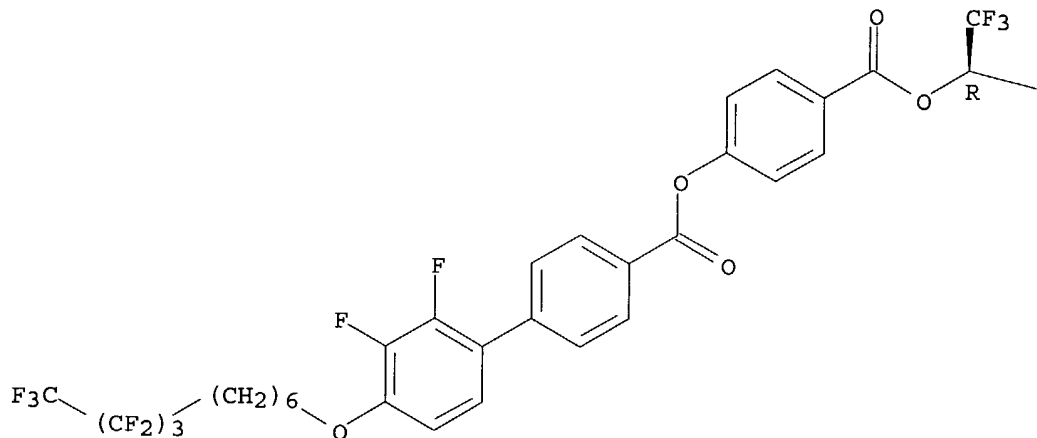
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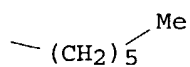


IT 347192-53-4P 402860-12-2P  
 RL: DEV (Device component use); SPN (Synthetic preparation); PREP  
 (Preparation); USES (Uses)  
 (partially fluorinated liquid crystal material for liquid crystal display)  
 RN 347192-53-4 CAPLUS  
 CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
 [(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1R)-1-  
 (trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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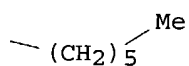
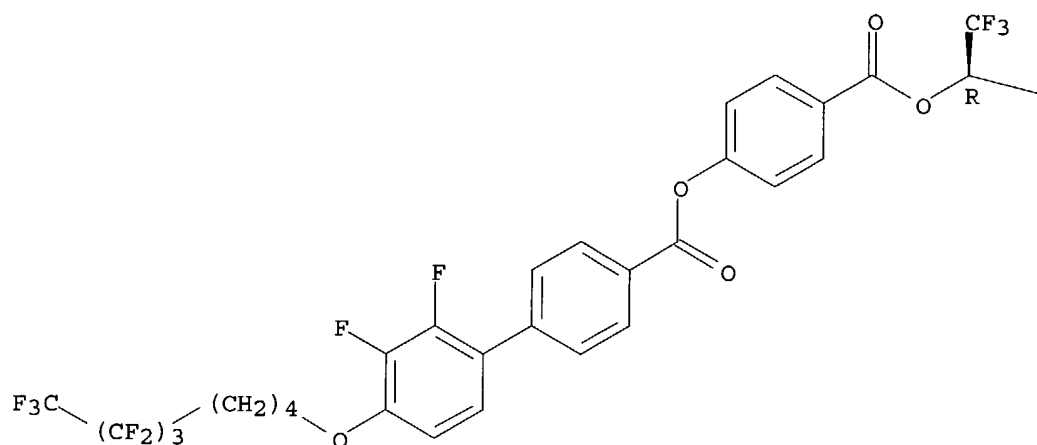




RN 402860-12-2 CAPLUS

CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-[(5,5,6,6,7,7,8,8,8-nonafluorooctyl)oxy]-, 4-[[[(1R)-1-(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



AN 2001:305417 CAPLUS  
 DN 135:84565  
 ED Entered STN: 01 May 2001  
 TI Unusual Thickness-Dependent Thermal Behavior and Anticlinic Coupling in  
 Chiral Smectic Free-Standing Liquid-Crystal Films  
 AU Chao, C. Y.; Lo, C. R.; Wu, P. J.; Liu, Y. H.; Link, D. R.; MacLennan, J.  
 E.; Clark, N. A.; Veum, M.; Huang, C. C.; Ho, J. T.  
 CS Department of Physics and Astronomy, National Central University,  
 Chung-Li, 32054, Taiwan  
 SO Physical Review Letters (2001), 86(18), 4048-4051  
 CODEN: PRLTAO; ISSN: 0031-9007  
 PB American Physical Society  
 DT Journal  
 LA English  
 CC 75-11 (Crystallography and Liquid Crystals)  
 Section cross-reference(s): 69, 76  
 AB A series of discrete transitions in the relative orientation of the tilt  
 of the interior and surface layers was observed in free-standing films of a  
 chiral smectic liquid crystal. These transitions include a remarkable  
 reentrant synclinic-anticlinic-synclinic ordering sequence of the film  
 surfaces in the presence of an elec. field upon cooling. The profiles of  
 the associated heat-capacity anomalies are found to be strongly thickness  
 dependent and exhibit a novel crossover behavior in reduced dimensions.  
 The anticlinic coupling between tilted surface layers in the smectic-A  
 phase were measured.  
 ST smectic liq crystal orientation tilt transition  
 IT Liquid crystals  
 (smectic; unusual thickness-dependent thermal behavior and anticlinic  
 coupling in chiral smectic free-standing liquid-crystal films)  
 IT Electric field effects  
 (synclinic-anticlinic-synclinic ordering sequence of chiral smectic  
 liquid crystal film surfaces in the presence of an elec. field upon  
 cooling)  
 IT Liquid crystals  
 (transitions; unusual thickness-dependent thermal behavior and  
 anticlinic coupling in chiral smectic free-standing liquid-crystal films)  
 IT Molecular orientation  
 Order  
 (unusual thickness-dependent thermal behavior and anticlinic coupling  
 in chiral smectic free-standing liquid-crystal films)  
 IT 347192-53-4  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
 PROC (Process)  
 (unusual thickness-dependent thermal behavior and anticlinic coupling  
 in chiral smectic free-standing liquid-crystal films)  
 RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE  
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IT 347192-53-4

RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
PROC (Process)

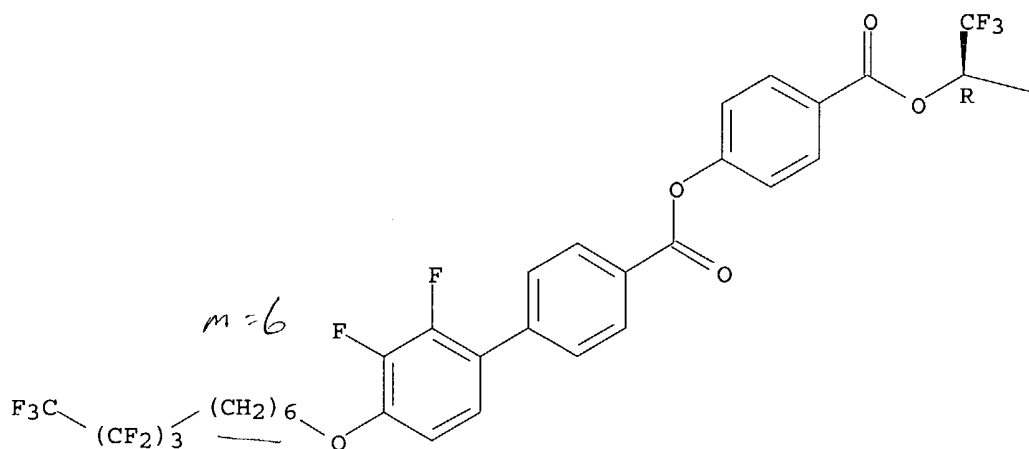
(unusual thickness-dependent thermal behavior and anticlinic coupling  
in chiral smectic free-standing liquid-crystal films)

RN 347192-53-4 CAPLUS

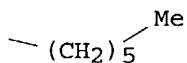
CN [1,1'-Biphenyl]-4-carboxylic acid, 2',3'-difluoro-4'-  
[(7,7,8,8,9,9,10,10,10-nonafluorodecyl)oxy]-, 4-[[[(1R)-1-  
(trifluoromethyl)heptyl]oxy]carbonyl]phenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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V-